

Parameter	Model Test Value	Value used/Estimated using values from from the literature	Reference
Alpha/Beta ( forward/reverse reaction constants for sgRNA)	0.00001 AU	0.024 Hz	McClure WR. Rate-limiting steps in RNA chain initiation. Proc Natl Acad Sci U S A. 1980 Oct77(10): 5634-8.
Gamma/Delta (forward/reverse reaction constants for Leptospirosis RNA)	0.00001 AU	0.024 Hz	McClure WR. Rate-limiting steps in RNA chain initiation. Proc Natl Acad Sci U S A. 1980 Oct77(10): 5634-8.
Epsilon/Eta (forward/reverse reaction constants for RNA binding protein)	0.00001 AU	0.024 Hz	McClure WR. Rate-limiting steps in RNA chain initiation. Proc Natl Acad Sci U S A. 1980 Oct77(10): 5634-8.
Lamda/Mu (forward/reverse reaction constants for dCas9)	0.000001 AU	61 Hz	
Tau (rate of GFP degradation due to diffusion)	0.00075 AU	$5.3 \pm 1.9 \mu\text{m}^2/\text{s}$	Konopka MC, Shkel IA, Cayley S, Record MT, Weisshaar JC. Crowding and confinement effects on protein diffusion in vivo. J Bacteriol. 2006 Sep188(17):6115-23. p.6120 left column top paragraph and p. 6119 table 1
Max Number of molecules in a cell	$2.5 \times 10^6 / \mu\text{m}^3$	$2.5 \times 10^6 / \mu\text{m}^3$	What is the total number of protein molecules per cell

			<p>volume? A call to rethink some published values - Ron Milo 1</p> <p>Department of Plant Sciences, Weizmann Institute of Science, Israel</p>
Max number of sgRNA molecules in a cell	36000	36000	<p>Siwiak M, Zielenkiewicz P. A comprehensive, quantitative, and genome-wide model of translation. PLoS Comput Biol. 2010 Jul 29 6(7):e1000865. p.11 out of 15 right column 2nd paragraph</p>
GFP maturation time	6.5 $\pm$ 0.6 minutes	6.5 $\pm$ 0.6 minutes	<p>Megerle JA, Fritz G, Gerland U, Jung K, Rädler JO. Timing and dynamics of single cell gene expression in the arabinose utilization system. Biophys J. 2008 Aug 95(4):2103-15. p.2106 right column bottom of paragraph</p>